

Regional HIV/AIDS Epidemiologic Profile of Northeast Health Service Region (HSR), Massachusetts: 2013

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2013, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2012: Northeast HSR, Massachusetts²

	N	%
People Living with HIV/AIDS	2,892	62%
People Reported with HIV or AIDS who are Deceased	1,755	38%
Total Number of People Reported with HIV Infection or AIDS	4,647	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 2. Average annual rate of HIV infection diagnosis from 2009 to 2011 and HIV/AIDS prevalence rate on 12/31/12¹: Northeast HSR, Massachusetts²

Average annual HIV diagnosis rate from 2009–2011	Average rate per 100,000	Average annual number of HIV diagnoses
Northeast HSR, MA	8.4	108.7
Massachusetts Total	10.3	664.7
HIV/AIDS prevalence rate on 12/31/12	Rate per 100,000	Number of people living with HIV/AIDS
Northeast HSR, MA	224.4	2,892
Massachusetts Total	277.5	18,170

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2002–2011, Northeast HSR, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2002	2,010	50	165
2003	2,119	53	162
2004	2,229	45	155
2005	2,327	44	142
2006	2,416	45	134
2007	2,483	52	119
2008	2,584	35	136
2009	2,657	35	108
2010	2,717	49	109
2011	2,784	42	109

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 4. People diagnosed with HIV infection from 2009–2011¹ and people living with HIV/AIDS on December 31, 2012 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Northeast HSR, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	225	69%	1,915	66%
Female	101	31%	977	34%
Place of Birth:	N	%	N	%
US	168	52%	1,629	56%
Puerto Rico/US Dependency ³	22	7%	367	13%
Non-US	136	42%	896	31%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	110	34%	1,245	43%
Black (non-Hispanic)	93	29%	699	24%
Hispanic/Latino	103	32%	830	29%
Asian/Pacific Islander	20	6%	100	3%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	109	33%	908	31%
Injection Drug Use (IDU)	22	7%	492	17%
MSM/IDU	-- ⁷	-- ⁷	81	3%
Heterosexual Sex	43	13%	459	16%
Other	-- ⁷	-- ⁷	68	2%
Total Undetermined	143	44%	884	31%
• Presumed Heterosexual Sex ⁴	37	11%	324	11%
• Undetermined ⁵	106	33%	560	19%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2012	
Under 13	1	<1%	4	<1%
13 to 19	7	2%	24	1%
20 to 24	24	7%	54	2%
25 to 29	30	9%	77	3%
30 to 34	49	15%	143	5%
35 to 39	52	16%	238	8%
40 to 44	53	16%	369	13%
45 to 49	46	14%	588	20%
50 to 54	32	10%	587	20%
55 to 59	14	4%	415	14%
60+	18	6%	393	14%
Total⁶	326	100%	2,892	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁷ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 5. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: Northeast HSR, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	998	52%	247	25%
Black (non-Hispanic)	324	17%	375	38%
Hispanic/Latino	515	27%	315	32%
Asian/Pacific Islander	69	4%	31	3%
Total²	1,915	100%	977	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 6. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: Northeast HSR, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	908	47%	N/A	N/A
Injection drug use (IDU)	308	16%	184	19%
MSM/IDU	81	4%	N/A	N/A
Heterosexual sex	120	6%	339	35%
Other	34	2%	34	3%
Total Undetermined	464	24%	420	43%
• Presumed heterosexual sex ²	N/A	N/A	324	33%
• Undetermined ³	464	24%	96	10%
Total	1,915	100%	977	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Northeast HSR, Massachusetts¹, 2002–2011²

	Male		Female		Total
	N	%	N	%	
2002	108	65%	57	35%	165
2003	109	67%	53	33%	162
2004	93	60%	62	40%	155
2005	86	61%	56	39%	142
2006	89	66%	45	34%	134
2007	72	61%	47	39%	119
2008	87	64%	49	36%	136
2009	73	68%	35	32%	108
2010	76	70%	33	30%	109
2011	76	70%	33	30%	109

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Northeast HSR, Massachusetts¹, 2002–2011²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Asian/Pacific Islander		Total ³
	N	%	N	%	N	%	N	%	N
2002	61	37%	51	31%	43	26%	9	5%	165
2003	61	38%	47	29%	48	30%	6	4%	162
2004	56	36%	48	31%	44	28%	7	5%	155
2005	45	32%	50	35%	43	30%	4	3%	142
2006	56	42%	40	30%	36	27%	2	1%	134
2007	44	37%	30	25%	41	34%	3	3%	119
2008	38	28%	43	32%	42	31%	12	9%	136
2009	34	31%	33	31%	35	32%	6	6%	108
2010	41	38%	31	28%	30	28%	7	6%	109
2011	35	32%	29	27%	38	35%	7	6%	109

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Northeast HSR, Massachusetts¹, 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2002	77	47%	18	11%	70	42%	165
2003	76	47%	21	13%	65	40%	162
2004	77	50%	13	8%	65	42%	155
2005	62	44%	12	8%	68	48%	142
2006	79	59%	10	7%	45	34%	134
2007	63	53%	12	10%	44	37%	119
2008	63	46%	11	8%	62	46%	136
2009	56	52%	8	7%	44	41%	108
2010	56	51%	10	9%	43	39%	109
2011	56	51%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	109

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

⁴ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Northeast HSR, Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	48	29%	25	15%	-- ⁵	-- ⁵	25	15%	-- ⁵	-- ⁵	27	16%	38	23%	165
2003	54	33%	28	17%	-- ⁵	-- ⁵	20	12%	-- ⁵	-- ⁵	18	11%	39	24%	162
2004	39	25%	20	13%	-- ⁵	-- ⁵	27	17%	-- ⁵	-- ⁵	22	14%	42	27%	155
2005	35	25%	12	8%	-- ⁵	-- ⁵	25	18%	-- ⁵	-- ⁵	26	18%	40	28%	142
2006	44	33%	14	10%	-- ⁵	-- ⁵	20	15%	-- ⁵	-- ⁵	20	15%	32	24%	134
2007	36	30%	16	13%	-- ⁵	-- ⁵	16	13%	-- ⁵	-- ⁵	17	14%	32	27%	119
2008	43	32%	6	4%	5	4%	18	13%	0	0%	21	15%	43	32%	136
2009	42	39%	5	5%	-- ⁵	-- ⁵	15	14%	-- ⁵	-- ⁵	13	12%	30	28%	108
2010	35	32%	8	7%	-- ⁵	-- ⁵	16	15%	-- ⁵	-- ⁵	12	11%	35	32%	109
2011	32	29%	9	8%	-- ⁵	-- ⁵	12	11%	-- ⁵	-- ⁵	12	11%	41	38%	109

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Northeast HSR, Massachusetts¹, 2002–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2002	65	165	39%
2003	48	162	30%
2004	76	155	49%
2005	55	142	39%
2006	51	134	38%
2007	41	119	34%
2008	38	136	28%
2009	33	108	31%
2010	43	109	39%
2011	46	109	42%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Northeast HSR, Massachusetts,¹ 2009–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	87	225	39%
Female	35	101	35%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	39	110	35%
Black (non-Hispanic)	32	93	34%
Hispanic/Latino	41	103	40%
Asian/Pacific Islander	10	20	50%
Other/Undetermined ³	0	0	0%
Place of Birth:	N	N	%
US	60	168	36%
Puerto Rico/US Dependencies ⁴	9	22	41%
Non-US	53	136	39%
Total	122	326	37%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13